Gas-to-Coal
Air Permit Requirements

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A bit different than 1982-1995

- Original permit was 0.7 lb NO_X/MMBtu
- Only stack tested once @ 0.6 lb/MMBtu
- New limit is 0.29 lb/MMBtu (0.06 on gas)
- Permit requirements much stricter today
- Must install "Best Available Control Tech"
  - With consideration for economics and technical feasibility

NO_X Control

- Detroit Stoker OFA configuration, FGR, and water injection guarantee of 0.45 lb NO_X/MMBtu
- FuelTech urea system (SNCR) used to reduce further to 0.29 lb NO_X/MMBtu
- OCI – pulverized coal without SNCR emissions at 0.25 and 0.27 lb NO_X/MMBtu
  - Determined not economical to install SNCR

NO_X Monitoring

- Three new CEM systems, one on each duct prior to common stack, and one on stack
- Once both calciners converted, compliance on stack CEM only
- In the interim, must report lb NO_X/MMBtu from CA-2 duct CEM system
- Report pph NO_X from stack
- NO_X compliance on 30-day rolling average

Monitors

- NO_X
- O_2 (both wet and dry on stack)
- Optical Flow Monitor
- Opacity (will be moved from roof to inside)

Stack Testing

- Certify monitors (like boiler RATA) within 60 days of start-up
- Stack test within 90 days of start-up
  - SO_2
  - Ammonia
  - Particulate